

Appl. No. 10/708,505
Amdt. dated June 24, 2005
Reply to Office action of March 25, 2005

AMENDMENTS TO THE SPECIFICATION

Please replace the original title with the following new title:

PROJECTION DISPLAY WITH LAMP COOLING APPARATUS HAVING RECESS FORMED ON CASING AND FAN NOT INSIDE RECESS

- 5 Please replace the paragraph [0005] with the following amended paragraph.

[0005] Please refer to FIG. 1. A conventional cooling device of a lamp of a projection display device comprises a lamp 11A and a fan 12 installed behind the lamp 11A. Air in the device is inhaled by the fan 12 to flow through the [[flank]] sides of the lamp
10 11A to process cooling on the lamp 11A, and then is expelled out from an air outlet (not shown in the figure) to attain a cooling effect. The disposition of a single air passageway is adopted in a general projection display device; the air cools down optical elements with lower temperature first, and this causes the density of air current to be different and to yield a phenomena that the air is cooler at the lower side of the
15 device and hotter at the upper side thereof. The fan 12 installed behind the lamp 11A is further used to cool down the lamp 11A. At this time, the hotter air is drawn through the upper side of the fan 12 and the cooler air is drawn through the lower side of the fan 12. But, because the thermal load of hot air is rather high, the heat at the upper side of the lamp cannot be carried away effectively so that a perfect cooling
20 effect cannot be attained.

Please replace the paragraph [0016] with the following amended paragraph.

[0016] Please refer to FIGS. 3 and 4. A lamp cooling apparatus 30 is applied in a projection display device 20. The projection display device 20 comprises a casing 21,
25 lamp 22 installed in the casing 21, optical engine 23 and the lamp cooling apparatus 30. An air inlet and air outlet are respectively disposed at the opposite [[flank]] sides of the casing 21 and with respect to the location of the lamp 22 as shown in FIG 3 and

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a passageway for clean airflow is formed between them. The lamp 22 is used to provide beams for illumination. The optical engine 23 is combined with the lamp 22 to form one body so as to transform the illumination beams into image beams. The lamp cooling apparatus 30 comprises a fan 31, recess 32 and lamp cover 33. The fan 5 31 is installed at the bottom part of the lamp 22 and the recess 32 is opened on the casing 21 and located below the fan 31 so as to increase the air influx for the fan 31. The lamp cover 33 is covered outside of the lamp 22 to allow a convection space 34 to be formed between the outside of the lamp 22 and the lamp cover 33. An air inlet 331 and air outlet 332 for the lamp cover 33 are respectively opened at the bottom and the 10 top of the lamp. The fan 31 is disposed to face the air inlet 331 and diversion plates 35 are installed at the air outlet 332 to guide the air in the convection space 34 to be exhaled from the air outlet 212 of the display device.